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(71) Applicant (for all designated States except US): **SMART LIGHT DEVICES IRELAND LIMITED** [GB/GB]; TEIC Building, University of Ulster, Jordanstown Campus, Shore Road, Newtownabbey, County Antrim BT37 0QB (GB).

(71) Applicant and

(72) Inventor (for all designated States except US): **LUNNEY, Frank** [GB/GB]; 56 Upper Malone Gardens, Belfast BT9 6LY (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **McSTAY, Daniel**

[GB/GB]; 6 Kirkton of Durriss, Banchory, Aberdeenshire AB31 6BQ (GB). **FORTE, Anton** [GB/GB]; 9 Watermead Avenue, Greyabbey, County Down BT22 2XA (GB). **THABETH, Khalid** [GB/GB]; 5 Treetops Lane, Doagh Road, Newtownabbey, County Antrim BT36 6XH (GB). **GREENAWAY, Terrence** [GB/GB]; 14 Gilnahirk Rise, Belfast BT5 7DT (GB).

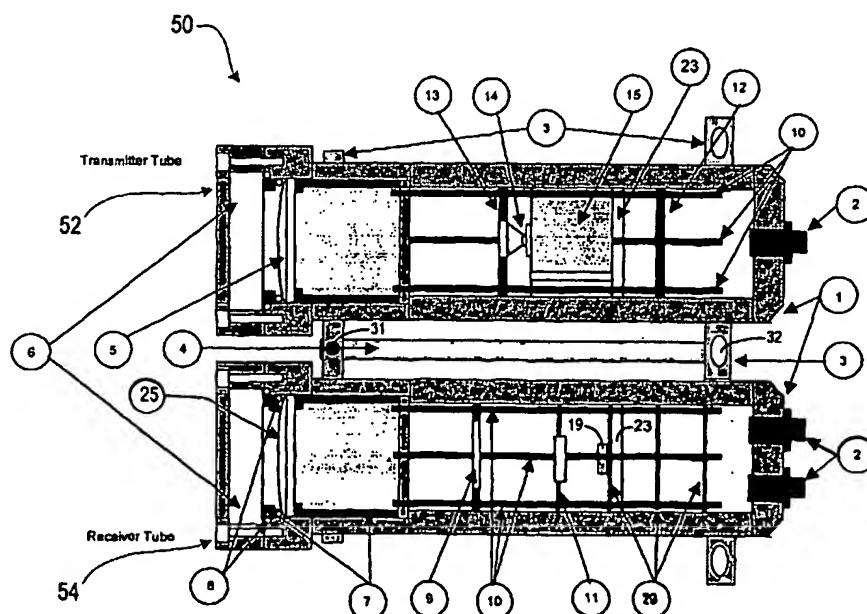
(74) Agents: **WALLACE, Alan et al.**; F.R. Kelly & Co., 4 Mount Charles, Belfast BT7 1NZ (GB).

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(54) Title: **FLUOROMETER**



(57) Abstract: A fluorometer comprising an excitation system including an excitation source for producing excitation light capable of causing fluorescence in fluorescent material; and a detection system for detecting said fluorescence. The excitation source comprises one or more light emitting diodes (LEDs) associated with means for causing said excitation light to form a beam that projects, during use, from the fluorometer. In one embodiment, the excitation system and the detection system are located in respective separate housings, the angular disposition between the housings being adjustable. In other embodiments, the excitation system and the detection system are located in the same housing. The fluorometer is particularly suited for use in detecting leaks in aqueous environments, especially when mounted on an underwater vehicle.

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